

South Corridor LRT

Charlotte, North Carolina

(November 2002)

Description

The Charlotte Area Transit System (CATS), in cooperation with the City of Charlotte, is proposing to design and construct a light rail transit (LRT) line extending from Uptown Charlotte (the City's central business district) to I-485 in south Mecklenburg County near the South Carolina state line. The proposed project is currently planned to operate within portions of existing Norfolk-Southern (NS) railroad right-of-way (ROW), including sharing ROW with the city's existing downtown trolley system.

The South Corridor is an area generally paralleling I-77 along NS railroad ROW in the City of Charlotte and Mecklenburg County. A 3.7-mile portion of the proposed system – between Uptown and Scaleybark Road – would operate on abandoned NS ROW owned by the City of Charlotte. The remainder of the planned system (5.9 miles) would operate on separate tracks generally paralleling the NS ROW. Seven proposed stations from I-485 north to Scaleybark Road will include park and ride lots and serve as transfer points for local and express bus service.

The South Corridor LRT project is expected to enhance accessibility and mobility within the corridor by providing an alternative to the automobile. It is estimated to reduce vehicle miles traveled in the region by nearly 40,000 each weekday in forecast year 2025, resulting in a reduction in total automobile emissions.

Summary Description	
Proposed Project:	South Corridor LRT 9.6 Miles, 15 Stations
Total Capital Cost (\$YOE):	\$370.8 Million
Section 5309 New Starts Share (\$YOE):	\$185.4 Million (50%)
Annual Operating Cost (2025 \$YOE):	\$26.3 Million
Ridership Forecast (2025):	25,760 Average Weekday Boardings 8,600 Daily New Riders
Opening Year Ridership Forecast (2006):	12,880 Average Weekday Boardings
FY 2004 Finance Rating:	Medium-High
FY 2004 Project Justification Rating:	Medium
FY 2004 Overall Project Rating:	Recommended

The overall project rating of **Recommended** is based upon the strong land use plans and policies as well as the strength of the capital and operating financing plans. The overall project rating applies to this *Annual Report on New Starts* and reflects conditions as of November 2002. Project evaluation is an ongoing process. As New Starts projects proceed through project development, the estimates of cost, benefits, schedules and impacts are refined. **The FTA ratings and recommendations will be updated annually to reflect new information, changing conditions, and refined financing plans.**

Status

In 1999, the City of Charlotte completed a Major Investment Study examining transportation and coordinated land use options in the South Corridor between the Charlotte central business district and the Town of Pineville, North Carolina. In February 2000, the Metropolitan Transit Commission (governing board for CATS) selected light rail as the Locally Preferred Alternative (LPA). The LPA was adopted into the Mecklenburg-Union Metropolitan Planning Organization's financially constrained long range transportation plan in March 2000.

In November of 1998, a local referendum was passed authorizing a dedicated local sales tax of one-half percent for funding transit service in the region. FTA approved the South Corridor project into Preliminary Engineering in August 2000. CATS issued a Draft Environmental Impact Statement in October 2002. The current schedule indicates the Final Environmental Impact Statement will be issued in April/May 2003.

TEA-21 Section 3030(a)(8) authorizes the Charlotte North-South Corridor Transitway for Final Design and construction. Through FY 2002, Congress has appropriated \$19.78 million in Section 5309 New Starts funds for this project.

Evaluation

The following criteria have been estimated in conformance with FTA's *Reporting Instructions for the Section 5309 New Starts Criteria*, updated in June 2002. The project will be reevaluated when it is ready to advance to Final Design, and for next year's *Annual Report on New Starts*.

Project Justification Quantitative Criteria		
Mobility Improvements Rating: Low-Medium		
	<u>New Start vs. Baseline</u>	
Average Employment Per Station	4,750	
Average Low Income Households Per Station	90	
Transportation System User Benefit Per Project Passenger Mile (Minutes)	3.5	
Environmental Benefits Rating: Medium		
<u>Criteria Pollutant Reduced</u> (tons)	<u>New Start vs. Baseline</u>	
Carbon Monoxide (CO)	323	
Nitrogen Oxide (NO _x)	47	
Hydrocarbons	29	
Particulate Matter (PM ₁₀)	25	
Carbon Dioxide (CO ₂)	10,676	
<u>Annual Energy Savings</u> (million) BTU	132,290	
Cost Effectiveness Rating: Medium		
	<u>New Start vs. Baseline</u>	
Cost Per Transportation System User Benefit (current year dollars/hour)	\$18.61	
Operating Efficiencies Rating: Medium		
	<u>Baseline</u>	<u>New Start</u>
System Operating Cost per Passenger Mile (current year dollars)	\$0.43	\$0.43

[] indicate an increase in emissions.

Project Justification

Rating: Medium

The *Medium* project justification rating reflects the strong transit-supportive land use policies in place to support the proposed light rail project tempered by the average cost effectiveness and modest mobility improvements. Based on 1990 Census data there are an estimated 1,350 low-income households within a ½-mile radius of the proposed LRT, roughly 15 percent of total households within ½-mile of the proposed stations. There are an estimated 71,257 jobs within ½-mile of the proposed stations. The Charlotte metropolitan area is designated as a “moderate maintenance area” for ozone and a “maintenance area” for carbon monoxide. The South Corridor LRT has an incremental cost per incremental trip value of \$15.51.

Existing Land Use, Transit-Supportive Land Use Policies and Future Patterns

Rating: Medium

The *Medium* land use rating reflects the strong policies employed by the region to implement transit-supportive land use development in the Charlotte-Mecklenburg metropolitan area tempered with the average existing land use. The rating also acknowledges the region's unified cooperative approach across agencies to realize this goal.

Existing Conditions: The predominant land uses along the proposed corridor are commercial, industrial, and multi- and single family housing, along with lower-density office and institutional uses. The northern terminus of the project is the Charlotte central business district (CBD), which contains 14 million square feet of office space with over 55,000 employees. The CBD contains a number of major trip generators including Ericsson Stadium, the Charlotte Convention Center, and the North Tryon arts and entertainment district. Just south of the CBD, in an area called the South End District, development densities have significantly increased over the last four years, as new transit-oriented infill development has occurred. The portions of the corridor that are south of the South End District are predominantly low-density and automobile-oriented. Land uses in the southern portion of the corridor include a mixture of light industrial, commercial, newer multi-family housing, and a large regional retail facility.

Future Plans, Policies and Performance: The region has proactively supported and developed land use plans and policies that are considered supportive of transit in the adoption of the *2025 Integrated Land Use/Transit Plan*. The plan is designed to concentrate growth within designated transit corridors (the South Corridor being the first of five such corridors to be have transit development,) and promote urban redevelopment in an older section of the city. Local measures have been approved to support the plan including a pedestrian overlay zone, a draft version of transit oriented development regulations, and a Charlotte City Council measure that encourages infill and redevelopment. Guidelines have been created for extensive pedestrian networks in station areas, and a "Joint Development Policy" outlines the public and private sector partnerships and strategies to be used to implement station area plans.

Redevelopment and infill development are continuing in the Charlotte region, especially high density development along the future light rail corridor. New developments in the South End District demonstrate the incorporation of transit-oriented design concepts such as higher intensities and building heights, shorter setbacks and streetwalls, active uses at ground level, and the location of parking to the rear of development sites. Over the past five years, 20 projects representing over \$250 million in private sector development have been built or are in design. Redevelopment of abandoned industrial land will add over 800,000 square feet of office and retail space and over 1,000 new housing units.

Local Financial Commitment

Rating: Medium-High

The *Medium-High* rating for local financial commitment was determined by the Medium-High rating for the capital financing plan.

Proposed Non-Section 5309 New Starts Share of Total Project Costs: 50%

Rating: Medium

CATS will use Section 5309 New Starts funds, State funds from the recently created North Carolina Transit Trust Fund, and local funding from the dedicated sales tax to construct the project.

Locally Proposed Financial Plan		
<u>Proposed Source of Funds</u>	<u>Total Funding (\$million)</u>	<u>Percent of Total</u>
Federal: Section 5309 New Starts	\$185.4	50.0 %
State: Transportation Trust Fund	\$92.7	25.0 %
Local: Dedicated Sales and Use Tax	\$92.7	25.0%
Total:	\$370.8	100.0 %

NOTE: Funding proposal reflects assumptions made by project sponsors, and are not DOT or FTA assumptions. Total may not add due to rounding.

Stability and Reliability of Capital Financing Plan

Rating: Medium-High

The *Medium-High* rating reflects the strong financial condition of CATS and the percentage (50 percent) of non-Section 5309 New Starts funding committed at the local level to the proposed project.

Agency Capital Financial Condition: CATS is a component of the city government. The financial condition of both the city and CATS is strong. The City of Charlotte is one of the select jurisdictions nationwide with an AAA credit rating. The city also has the authority to issue debt or enter into leases to meet long-term financial requirements without the requirement for a referendum. When combined with the region's strong dedicated tax source, this creditworthiness and funding capacity provide CATS with significant financial resources to meet capital needs. The average age of the current bus fleet is between eight and ten years.

Capital Cost Estimate and Contingencies: The capital cost estimate of the project has increased from \$348.1 million to \$370.8 million. Contingency allowances have decreased from 19.7 percent of the total capital cost to 10.5 percent of the revised capital cost, which is considered low for a project at this stage of development.

Existing and Committed Funding: At this time, approximately 50 percent of the proposed non-Section 5309 New Starts funds have been committed to the South Corridor LRT project through CATS' dedicated sales tax revenues. The remaining 50 percent of the proposed non-Section 5309 New Starts funding will come from the State and is considered budgeted. The source of funds for the State share is a \$120 million Transit Trust Fund created by the North Carolina Legislature in 2001, with revenue transfers from the NCDOT Highway Fund. Trust Funds revenues can be used to match Federal New Start grants provided under a Full Funding Grant Agreement. State legislative action is required to commit the remaining 50 percent.

New and Proposed Sources: The South Corridor capital financial plan does not include any new or proposed sources of funding.

Stability and Reliability of Operating Finance Plan

Rating: Medium-High

The *Medium-High* rating reflects CATS' (a component of the City of Charlotte) healthy operating condition. Revenues to operate the proposed South Corridor light rail project appear to be strong.

Agency Operating Financial Condition: CATS is undergoing a significant expansion of transit services throughout the region and is funding this through dedicated sales tax revenues. While CATS bus expansion and corridor development programs appear very ambitious, the agency's financial capacity to undertake these investments is substantial. CATS has experienced positive operating balances over the past five years.

Operating Cost Estimates and Contingencies: Operating cost estimates appear reasonable for this stage of project development. In forecast year 2025, annual operating costs for the South Corridor LRT are projected to be \$26.3 million. This represents a minor portion (8.5 percent) of the cost of the entire regional transit expansion planned for the region by 2025. The projections assume a farebox recovery ratio of roughly 25 percent for the LRT system and 28 percent for the bus system.

Existing and Committed Funding: The proposed sources of operating funds for the South Corridor LRT are existing and committed. Funds to support operating expenses are derived from the Charlotte-Mecklenburg region's retail sales tax, farebox revenues, State general appropriations and other local sources including a regional service reimbursement program and the City's interest income. Only the sales tax revenues are considered committed, but these account for more than 70 percent of total operating funds.

New and Proposed Funding Sources: All proposed operating revenues currently exist. No new sources are proposed.

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